TRANSLATION

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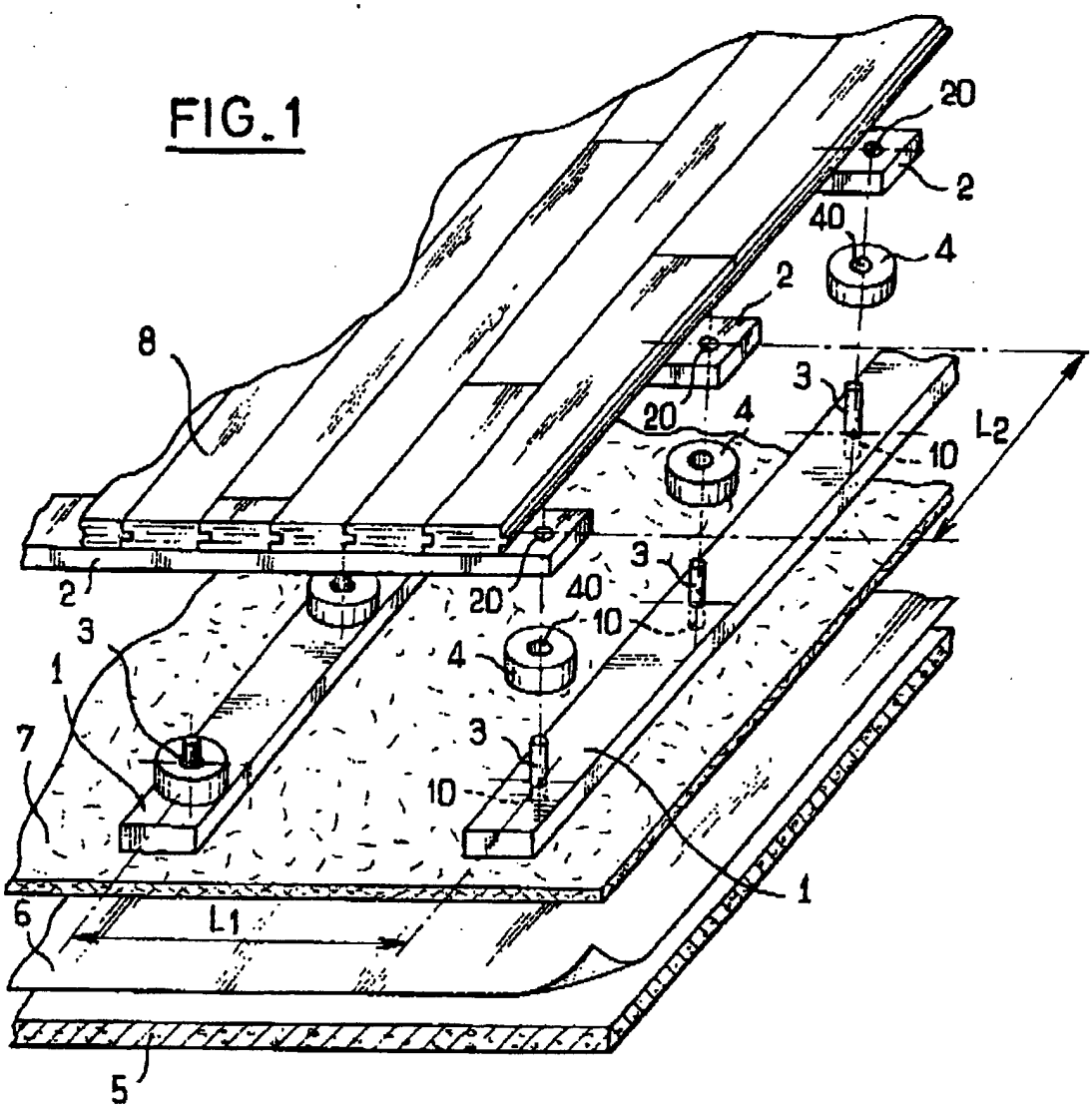
(54) **Support for parquet floor.**

(57) The invention relates to an elastic parquet floor support comprising two superimposed beds of crossed floor batten having elastic pads inserted between their intersections; according to the invention, these pads (4) are retained between two superimposed floor battens (1, 2) by means of pegs (dowels) (3) which traverse them and whose extremities are fitted into holes (20, 10) drilled in each of the floor battens.

Laying of parquet floors, notably for use in sporting activities.

FIG_1



The present invention relates to a support for parquet floors.

Traditionally, a support for parquet floors is composed of one bed or of two superimposed beds of joists or floor battens; in the case of two beds, the battens in one bed are crossed at right angles to those in the other bed.

In this case, in order to increase the elasticity of the parquet floor, it has recently been proposed to insert elastic pads at the intersection of the battens in each bed. Such an arrangement is useful, in particular, for parquet floors used for sporting activities, the flexibility and elasticity of the parquet floor obtained substantially reducing the risk of muscular injuries in the users.

Such a device is described, for example, in document EP-B-198 890. According to this technique, the elastic pads are attached to the floor battens, between which they are inserted, by bonding or fastening.

It is understood that fabricating such a support for parquet floors is time-consuming and delicate to the extent that each of the elastic pads must be individually attached by bonding or by fasteners to each of the battens between which it is inserted.

The present invention proposes to improve this type of support for parquet floors so as to considerably facilitate the laying of said support, which can be effected in a relatively short time and by unskilled personnel.

These results are achieved, according to the invention, by the fact that these pads are retained between two superimposed floor battens by means of pegs (dowels) which traverse them and whose extremities are fitted into holes drilled in each of the two floor battens.

After fitting the pegs (dowels) into the battens constituting the lower bed, for example by pressing them in, the elastic pads, which also have a hole drilled therein, are each placed over a peg, then the second bed of floor battens is fitted onto the pegs perpendicular to the first bed, to obtain an elastic sub-floor ready to receive a parquet floor.

Preferably, the pegs are force-fitted or bonded to the floor battens in the lower bed, and engage with some clearance both through the pads and in the holes provided in the upper floor battens. As a result of this clearance, the two batten beds can get closer to one another by compressing the pads under the effect of vertical stresses imposed on the parquet floor.

The elastic pads can simple be disc-shaped elements made from a deformable elastic material, for example natural or synthetic rubber.

By varying the distance between the floor battens constituting the lower and upper bed, as well as the nature, dimensions and hardness of the pads, it is possible to obtain any desired flexibility in the parquet floor.

Other characteristics and advantages of the invention will become apparent from the attached drawings which represent a preferred embodiment.

In these drawings :

- Figure 1 is a partial cross section perspective view of a parquet floor mounted on a support according to the invention;
- Figure 2 is a detailed view showing a vertical cross section of the intersection of two floor battens provided with an elastic pad.

The floor battens constituting the parquet floor support according to the invention are rectangular cross section slats made of wood or plywood. The floor battens forming the lower bed are referenced by

1 and those forming the upper bed, which are placed at a right angle relative to battens 1, are referenced by 2.

As an example, the cross section of the floor battens can be 30 x 60 mm; the distance between two adjacent battens can be 250 mm, in both the upper bed and the lower bed.

Each of the floor battens has a series of vertical holes drilled therein which are equidistant whose spacing corresponds to that of the floor battens in the other layer. L1 designates the distance between floor battens 1 which is equal to the distance between the holes 20 in floor battens 2. Similarly, L2 designates the distance between floor battens 2 which is equal to the distance between the holes 10 in floor battens 1. In the example represented, L1 = L2 = 250 mm. Wooden pegs 3 are force-fitted into holes 10 in floor battens 1. The pegs 3 and the holes 10 and 20 are preferably cylindrical, the diameter of holes 20 in floor battens 2 is slightly larger than that of holes 10 as well as that of pegs 3.

For example, the diameter of the pegs is of the order of 12 mm.

An elastic pad is provided at the intersection of each floor batten, said pad being constituted from a disc 4 made from elastomeric material (synthetic rubber) having a certain flexibility.

Each disc 4 has a diameter which advantageously corresponds to the width of the floor battens, i.e. in the present case 60 mm; the height of the discs is for example 15 mm, and it has a central hole 40 drilled therein whose diameter is preferably slightly larger than that of the pegs 3.

The length of pegs 3 is slightly less than the sum of the thicknesses of the floor battens 1 and 2 and the height of pad 4; in the example described, this sum is 75 mm.

Laying of the floor is effected as follows.

In the usual manner, the lower floor batten bed 1 is placed and attached to a paving 5, for example made of concrete; a water-tight polyethylene film 6 and a layer of felt 7 to further increase the flexibility of the parquet floor are advantageously placed between the paving 5 and the floor battens 1.

It is also possible to mount the lower floor battens 1 onto an appropriate wedging provided on the paving 5.

After placing the lower floor battens 1 on the floor parallel to one another, at the desired spacing L1, pegs 3 are fitted into holes 10 provided in floor battens 1. It is of course possible to fit the pegs in the floor battens before they are placed on the floor.

Then, an elastic pad in the form of a disc 4 is placed on each of the pegs 3. Finally, the second bed of floor battens 2 is placed perpendicular to the floor battens 1, such that their holes 20 engage the upper extremities of pegs 3 extending above pads 4.

This provides instantaneous assembly of the upper floor battens 2 relative to lower floor battens 1 and relative to pads 4 which, via pegs 3, are entrapped between the floor battens.

The next step is to lay a parquet floor 8 on the upper floor batten bed 2, which is effected in the traditional manner, in order to obtain the desired elastic floor.

It is understood that various shapes of elastic pads can be used, for example having a square or rectangular shape, or an oval shape. As an indication, pads having a Shore hardness of the order to 30 to 50 can be used for floors used in sporting activities.

It is obviously possible to provide elastic pads only in some areas of intersection of the floor battens and not at every intersection.

Claims

1) Parquet floor support comprising two superimposed beds of crossed floor battens having elastic pads inserted between their intersections, characterized ion that said pads (4) are retained between two superimposed floor battens (1, 2) by means of pegs (dowels) (3) which traverse them and whose extremities are fitted into holes (20, 10) drilled in each of the floor battens.

2) Parquet floor support according to claim 1, characterized in that the pegs (3) are force fitted into or bonded to one of the floor batten (1) and are fitted with clearance into the other floor batten (2).

3) Parquet floor support according to any of the claims 1 or 2, characterized in that the pads (4) are discs of elastically deformable material, for example synthetic rubber.

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FIG_1

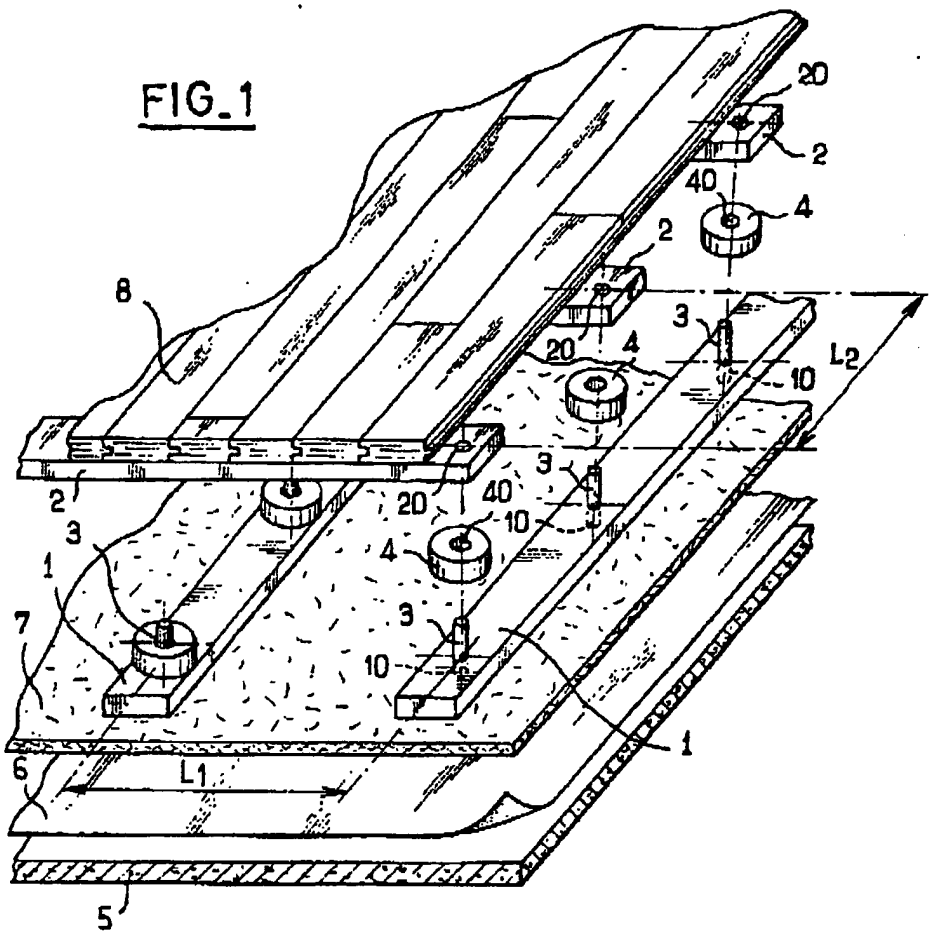
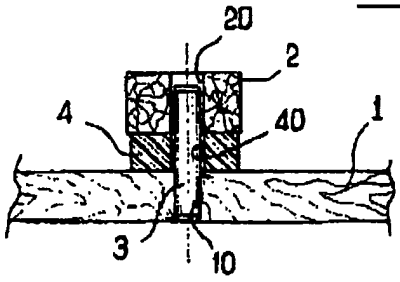


FIG_2



EUROPEAN PATENT OFFICE

Application number
EP 91 46 0029

EUROPEAN SEARCH REPORT

DOCUMENTS CONSIDERED TO BE PERTINENT

Category	Citation of document with indication, where appropriate of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl. [6])
A	US-A-1 787 067 (EISLER) * page 1, line 36 - page 2, line 76; figures 1 - 5 *	1-3	E04F 15/22
D, A	WO-A-8 602 686 (JUNCKERS INDUSTRIER A/5) * page 3, line 10 - page 6, line 5; figures 1-3 *	1	
A	AU-8-435 132 (INSULATION MATERIALS & SERVICES PTY. LTD) * page 4, line 11 to page 7, line 26; figures 1-3 *	1	
			TECHNICAL FIELDS SEARCHED (Int. Cl. [6])
			E 04 F E 01 C

The present report has been drawn up for all claims

Location of Search	Date of completion of the search	Examiner
THE HAGUE	**August 19, 1991**	**AYITER J.**

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
Y : particularly relevant if combined with another document of the same category
A : technological background
O : non-written disclosure
P : intermediate document

T : theory or principle underlying the invention
E : earlier patent document, but published on or after the filing date
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